

Title (en)
JOINING METHOD

Title (de)
VERBINDUNGSVERFAHREN

Title (fr)
PROCÉDÉ D'ASSEMBLAGE

Publication
EP 3871828 A4 20220727 (EN)

Application
EP 19875516 A 20191025

Priority
• JP 2018200660 A 20181025
• JP 2019041912 W 20191025

Abstract (en)
[origin: EP3871828A1] A joint method of bringing a first member (10) into contact with a second member (20) to be joined to each other, includes a groove formation step of removing part of a first projection (12) opposed to a second projection (22) and part of the second projection (22) opposed to the first projection (12) to form a groove region (R_g) between the first projection (12) and the second projection (22), a first welding step of joining the first member (10) and the second member (20) to each other by butt welding, and a second welding step of filling the groove region (R_g) by buildup welding. The groove formation step forms a first inclined surface (12d) in the first projection (12) facing the groove region (R_g) to be gradually distant from a joint position joined with the second projection (22) so as to be closer to an outer surface of the first projection (12), and forms a second inclined surface (22d) in the second projection (22) facing the groove region (R_g) to be gradually distant from the joint position joined with the first projection (12) so as to be closer to an outer surface of the second projection (22).

IPC 8 full level
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CPC (source: EP US)
B22F 10/28 (2021.01 - US); **B23K 26/0006** (2013.01 - EP); **B23K 26/0884** (2013.01 - EP); **B23K 26/26** (2013.01 - EP); **B23K 26/32** (2013.01 - EP); **B23K 26/34** (2013.01 - EP); **B23K 26/342** (2015.10 - US); **B23K 26/60** (2015.10 - EP); **B23K 31/022** (2013.01 - US); **B23K 33/004** (2013.01 - EP US); **B33Y 10/00** (2014.12 - US); **B23K 2101/18** (2018.08 - EP); **B23K 2103/04** (2018.08 - EP); **B23K 2103/10** (2018.08 - EP); **B23K 2103/14** (2018.08 - EP); **B23K 2103/26** (2018.08 - EP); **Y02P 10/25** (2015.11 - EP)

Citation (search report)
• [XY] JP S58218391 A 19831219 - KAWASAKI STEEL CO
• [Y] JP 2016190254 A 20161110 - TOSHIBA CORP
• [Y] DE 102004032975 A1 20060209 - MTU AERO ENGINES GMBH [DE]
• [Y] US 5183989 A 19930202 - SANDERS JOHN M [US], et al
• See also references of WO 2020085492A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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EP 3871828 A1 20210901; **EP 3871828 A4 20220727**; JP 7024885 B2 20220224; JP WO2020085492 A1 20210909; US 11958138 B2 20240416; US 2022080532 A1 20220317; WO 2020085492 A1 20200430

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